UNIVERSITY OF CALIFORNIA **ME 40 Thermodynamics**
Mechanical Engineering **Professor C. Fernandez-Pello**
Spring 2015

Course Information

Instructor:	Professor Carlos Fernandez-Pello,	
	6105A Etcheverry Hall,	
	Email: ferpello@me.berkeley.edu	
	Tel.: 642-6554	
GSI:	Miguel S. Aznar	m.sierra.aznar@berkeley.edu
	Xian Shi	xshi@berkeley.edu
Lecture:	MWF, 10:00 a.m. - 11:00 a.m., 105 North Gate	
Discussion:	Miguel S. Aznar	Fridays, 12:00 p.m. - 1:00 p.m., 3106 Etch. Hall
	Xian Shi	Thursdays, 5:00 p.m. - 6:00 p.m., 3108 Etch. Hall
Office hours:	Professor Pello	MW, 11:30 a.m. - 1:00 p.m., 6105A Etch. Hall
		Or by appt.
	Miguel S. Aznar	Fridays, 1:00 p.m. - 3:00 p.m., 136 Hesse Hall
	Xian Shi	Tu/Th, 4:00 p.m.- 5:00 p.m., 136 Hesse Hall
Textbook:	*Thermodynamics: An Engineering Approach, Customized for University of California Berkeley Y.A. Cengel and M. A. Boles, McGraw Hill, 7th or 8th Edition*	
Website:	https://bcourses.berkeley.edu/courses/1302526	
Problem Sets:	Weekly, due on Friday's lecture.	
Grading Policy:	Homework	20%
	Two Mid-terms	40%
	Final Exam	40%
	*** No make-up exams or late homework submission accepted without advanced and reasonable petition.**	
DSP Students:	If you need special accommodations in this class, please email Professor and GSI as soon as possible.	

Weekly Schedule

Week	Topics	Chapter
1 (1/21)	Introduction and basic concepts of thermodynamics.	1
2 (1/26)	General Energy Analysis	2
3 (2/2)	Thermodynamic properties and states. Property diagrams for phase change. The first law of thermodynamics	3/4
4 (2/9)	The first law of thermodynamics for closed systems, and applications	4
5 (2/16)	The first law of thermodynamics for control volumes. Analysis and applications to practical systems	5
6 (2/23)	The first law of thermodynamics review. **MT 1 (2/27)**	1-5
7 (3/2)	The second law of thermodynamics for enclosed systems and control volumes.	6
8 (3/9)	Entropy, and property diagrams involving entropy. Reversible work and irreversibility. Isentropic processes	7
9 (3/16)	The first and second law of thermodynamics review.	1-7
10 (3/23)	Spring Recess	
11 (3/30)	Gas and vapor power cycles	9,10
12 (4/6)	Refrigeration cycles**.** Review. **MT 2 (4/10)**	11
13 (4/13)	Gas mixtures	13
14 (4/20)	Gas vapor mixtures. Air conditioning	14
15 (4/27)	Review	
(5/12)	**FINAL 3:00 - 6:00 p.m.**	

Welcome to ME 40 Spring 2015

Welcome to ME 40 Thermodynamics Spring 2015. Several important messages listed:

1) We will be using bCourses for class communication (instead of previously used bSpace or Piazza). If you have any question, please use the “Discussions” tab on bCourses.

2) You can view or download the course outline, found in the bCourses section "Syllabus" (or "Files").

3) Homework assignments (as well as solutions) will be uploaded to bCourses on Friday after the due of previous homework. Homework are required to hand in on Friday’s lecture. It can be either written or print-out. **No late homework submission accepted without advanced and reasonable petition**.

4) There will be two midterms, both of which will be in class (check the detailed schedule in the syllabus). **No make-up exams accepted without advanced and reasonable petition.**

5) Grades, of both homework and exams, will be posted on “Grades” tab, bCourses. Regarding requests can be submitted within one week after distribution and with a short written explanation.

6) Please inform GSIs if you have trouble to attend office hours so that we can make changes accordingly. For discussion sessions, it is not required but highly recommended.

7) If you know of students who are also enrolled in ME40 but did not receive this email message, please ask them to check their email address as registered in the UCB system; they can find this information by going to directory.berkeley.edu and finding themselves through the search. It is this email that is used by bCourses.

8) Email Professor or GSIs if you have any administrative concern.

We hope that you will enjoy this semester with THERMODYNAMICS!

Carlos, Miguel and Xian